

REMARKS

Claims 1-44 were previously pending in this patent application. Claims 1-44 stand rejected. Herein, Claims 1, 8, 15, 24, and 35 have been amended. Accordingly, after this Amendment and Response After Final Rejection, Claims 1-44 remain pending in this patent application. Further examination and reconsideration in view of the arguments set forth below is respectfully requested.

35 U.S.C. Section 112, first paragraph, Rejections

Claims 1-44 stand rejected under 35 U.S.C. Section, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. In particular, in Claims 1, 8, 15, 24, and 35, the phrase "without regard to maintaining a continuous broadcast if said user device discontinues communicating said stream" was considered unsupported by the specification.

Herein, Claims 1, 8, 15, 24, and 35, have been amended to remove the phrase "without regard to maintaining a continuous broadcast if said user device discontinues communicating said stream". It is submitted that Claims 1-44 containing subject matter which was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. In light of the above arguments, withdrawal of the rejection of Claims 1-44 is respectfully requested.

It is respectfully submitted that Claims 1-44 are allowable over the prior art [including previously cited references Ice, U.S. Pat. No. 5,884,031 (hereafter Ice) and Ishida, U.S. Pat. No. 6,122,259 (hereafter Ishida)].

Claim 1 as amended recites:

A method of communicating broadcast information comprising the steps of:

- a) causing a server to communicate a first stream representing digital broadcast information to a first user device wherein said server and said first user device are coupled to the Internet;
- b) causing said server to communicate a second stream representing said broadcast information to a second user device wherein said second user device is coupled to the Internet;
- c) causing said first user device to communicate a third stream representing said broadcast information to a third user device wherein said third user device is coupled to the Internet; and
- d) receiving and rendering, concurrently, said broadcast information on said first, second and third user devices, wherein said user devices form one or more **communication chains**, wherein each communication chain has one or more tiers, and **wherein a sum of user devices in corresponding tiers of said communication chains is variable rather than pre-determined.** (emphasis added)

Ice discloses a private network which is built by first allowing a pre-determined number of client systems to connect to a server system. [Ice, Abstract]. Thus, the sum of client systems in this first tier is pre-determined instead of variable. After this occurs, additional client systems requesting connection are furnished with the addresses of client systems already connected within the private network. Id. Each of the additional client systems then makes connections with a multiple number of client systems to receive information from the server system. Id. Each of these client systems subsequently accepts connections from up to a second pre-determined number of client systems to which it transmits information received from the server system. Id. Hence, the sum of client systems in other tiers is pre-determined instead of variable.

Ishida discloses a multipoint video conference system using an ISDN. According to Ishida, each of the multipoint conference devices receives multicast data, such as audio or video data of a speaker, incoming via one of the ISDN lines, and displays the data on its monitor while sending it to the subsequent terminal under the control of a switch unit. [Ishida, Col. 4, lines 20-24]. As shown in Figure 5 of Ishida, each of the multipoint conference devices sends the data only to an adjacent terminal (either to the left of the transmitting terminal or to the right of the transmitting terminal), thus the video information cannot be simultaneously multicast.

It is respectfully submitted that Independent Claim 1 is patentable over the prior art (including Ice and Ishida). Unlike the prior art (including Ice and Ishida), Independent Claim 1 is directed to a method of communicating broadcast information having the steps of causing a server to communicate a first stream representing broadcast information to a first user device, causing the server to communicate a second stream representing the broadcast information to a second user device, causing the first user device to communicate a third stream representing the broadcast information to a third user device, and receiving and rendering, concurrently, the broadcast information on the first, second, and third user devices, wherein the user devices form one or more communication chains, wherein each communication chain has one or more tiers, and wherein a sum of user devices in corresponding tiers of the communication chains is variable rather than pre-determined. Thus, each user device receives and renders, concurrently, a portion of the stream of digital broadcast information transmitted by the server. While the prior art (including Ice and Ishida) focuses on building a pyramid-type of communication network, Claim 1 is directed to having user devices that form one or more communication chains, whereas each communication chain has one or more tiers. While the prior art (including Ice and Ishida) is directed to building a network such that

the number of user clients in each tier is pre-determined, Claim 1 is directed to having user devices such that the sum of user devices in corresponding tiers of the communication chains is variable rather than pre-determined. Hence, the Independent Claim 1 is patentable over the prior art (including Ice and Ishida) and is in a condition for allowance.

Dependent Claims 2-7 are dependent on allowable Independent Claim 1, which is allowable over the prior art (including Ice and Ishida). Hence, it is respectfully submitted that Dependent Claims 2-7 are patentable over the prior art (including Ice and Ishida) for the reasons discussed above.

With respect to Independent Claim 8, it is respectfully submitted that Independent Claim 8 recites similar limitations as in Independent Claim 1. In particular, Independent Claim 8 recites a method of broadcasting information, wherein the method includes achieving broadcasting of the broadcast information for the first group and a second group of electronic devices by forwarding the broadcast information from the first group of electronic devices to the second group of electronic devices of the network such that the first and second groups of electronic devices receive and render, concurrently, the broadcast information, wherein the electronic devices form one or more communication chains, wherein each communication chain has one or more tiers, and wherein a sum of electronic devices in corresponding tiers of the communication chains is variable rather than pre-determined. Therefore, Independent Claim 8 is allowable over the prior art (including Ice and Ishida) for reasons discussed in connection with Independent Claim 1.

Dependent Claims 9-14 are dependent on allowable Independent Claim 8, which is allowable over the prior art (including Ice and Ishida). Hence, it is respectfully

submitted that Dependent Claims 9-14 are patentable over the prior art (including Ice and Ishida) for the reasons discussed above.

With respect to Independent Claim 15, it is respectfully submitted that Independent Claim 15 recites similar limitations as in Independent Claim 1. In particular, Independent Claim 15 recites a method of communicating broadcast information, wherein the method includes receiving and rendering, concurrently, the broadcast information on the second and third user devices, wherein the user devices form one or more communication chains, wherein each communication chain has one or more tiers, and wherein a sum of user devices in corresponding tiers of the communication chains is variable rather than pre-determined. Therefore, Independent Claim 15 is allowable over Ice and Ishida for reasons discussed in connection with Independent Claim 1.

Dependent Claims 16-23 are dependent on allowable Independent Claim 15, which is allowable over the prior art (including Ice and Ishida). Hence, it is respectfully submitted that Dependent Claims 16-23 are patentable over the prior art (including Ice and Ishida) for the reasons discussed above.

With respect to Independent Claim 24, it is respectfully submitted that Independent Claim 24 recites similar limitations as in Independent Claim 1. In particular, Independent Claim 24 recites a system for communicating broadcast information, wherein the system includes a second and a third user devices also for receiving and rendering, concurrently, the broadcast information, wherein the user devices form one or more communication chains, wherein each communication chain has one or more tiers, and wherein a sum of user devices in corresponding tiers of the communication chains is variable rather than pre-determined. Therefore,

Independent Claim 24 is allowable over the prior art (including Ice and Ishida) for reasons discussed in connection with Independent Claim 1.

Dependent Claims 25-34 are dependent on allowable Independent Claim 24, which is allowable over the prior art (including Ice and Ishida). Hence, it is respectfully submitted that Dependent Claims 25-34 are patentable over the prior art (including Ice and Ishida) for the reasons discussed above.

With respect to Independent Claim 35, it is respectfully submitted that Independent Claim 35 recites similar limitations as in Independent Claim 1. In particular, Independent Claim 35 recites a system for communicating broadcast information, wherein the system includes a transmission scheduler for scheduling and maintaining communication links between the server, the first user device, the second user device and the third user device to transmit the broadcast information, wherein the user devices form one or more communication chains, wherein each communication chain has one or more tiers, and wherein a sum of user devices in corresponding tiers of the communication chains is variable rather than pre-determined. Therefore, Independent Claim 35 is allowable over the prior art (including Ice and Ishida) for reasons discussed in connection with Independent Claim 1.

Dependent Claims 36-44 are dependent on allowable Independent Claim 35, which is allowable over the prior art (including Ice and Ishida). Hence, it is respectfully submitted that Dependent Claims 36-44 are patentable over the prior art (including Ice and Ishida) for the reasons discussed above.

CONCLUSION

It is respectfully submitted that the above amendments, arguments and remarks overcome all rejections and objections. For at least the above presented reasons, it is respectfully submitted that all remaining claims (Claims 1-44) are now in condition for allowance.

The Examiner is urged to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

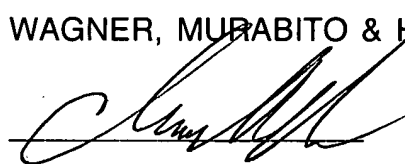
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Dated: _____

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